

IN THE CLAIMS

Please cancel, without prejudice, claims 10, 21, 31, and 43.

Please amend the remaining claims as follows:

- 1 1. (currently amended) A switched node for use in a computer network comprising:
 - 2 (a) switching circuitry comprising more than two bi-directional ports for simultaneously
 - 3 transmitting data in multiple dimensions through the computer network;
 - 4 (b) a disk for storing data and a head actuated over the disk for writing data to and
 - 5 reading data from the disk; and
 - 6 (c) a reservation facility for reserving resources for reading data from the disk and
 - 7 writing data to the disk to support a predetermined Quality-of-Service constraint with
 - 8 respect to data transmitted through the computer network,
 - 9 wherein the reservation facility limits movement of the head so as to constrain the head to
 - 10 a predetermined region of the disk, thereby reserving a resource within the switched
 - 11 node.
- 1 2. (previously presented) The switched node of claim 1, wherein the resources comprise
- 2 memory for buffering the data read from the disk and written to the disk.
- 1 3. (original) The switched node of claim 1, wherein the switching circuitry comprises a
- 2 plurality of virtual lanes and the resources comprise at least one of the virtual lanes.
- 1 4. (original) The switched node of claim 3, wherein each virtual lane comprises a
- 2 predetermined priority level.
- 1 5. (previously presented) The switched node of claim 3, wherein the transmitted data is
- 2 queued within each virtual lane in order of arrival into the switched node.

6. (previously presented) The switched node of claim 3, wherein the transmitted data is queued within each virtual lane with respect to transmission deadlines associated with the transmitted data.

7. (original) The switched node of claim 1, wherein the switching circuitry comprises processing circuitry and the resources comprise at least part of the processing circuitry.

8. (previously presented) The switched node of claim 1, wherein:
(a) the switching circuitry comprises linking circuitry for linking to a plurality of other switched nodes in the computer network;
(b) the linking circuitry comprises a limited bandwidth; and
(c) the resources comprise at least part of the linking circuitry bandwidth.

9. (original) The switched node of claim 1, wherein:
(a) the switching circuitry comprises adapter circuitry for connecting to an external entity; and
(b) the resources comprise at least part of the adapter circuitry.

10. (canceled)

11. (currently amended) A method of reserving resources in a computer network to support a predetermined Quality-of-Service constraint with respect to a new access request to transmit data between a disk drive and a client computer, the computer network comprising a plurality of interconnected computer devices including a plurality of disk drives, each disk drive comprising a head and a disk, the method comprising the steps of:

(a) finding at least one disk drive out of the plurality of disk drives that can service the new access request while supporting the Quality-of-Service constraint for the new and existing access requests; and

(b) reserving resources within the at least one disk drive to service the new access request, wherein the step of reserving resources comprises the step of limiting movement of the head so as to constrain the head to a predetermined region of the disk.

12. (previously presented) The method of reserving resources as recited in claim 11, wherein the resources comprise memory for buffering the transmitted data.

13. (original) The method of reserving resources as recited in claim 11, wherein the resources comprise network circuitry for communicating with the computer network.

14. (previously presented) The method of reserving resources as recited in claim 13, wherein:
(a) the network circuitry comprises multi-port switching circuitry for simultaneously transmitting the transmitted data in multiple dimensions through the computer network; and
(b) the resources comprise a virtual lane within the multi-port switching circuitry.

15. (original) The method of reserving resources as recited in claim 14, wherein each virtual lane comprises a predetermined priority level.

16. (previously presented) The method of reserving resources as recited in claim 14, wherein the transmitted data is queued within each virtual lane in order of arrival into the switched node.

1 17. (previously presented) The method of reserving resources as recited in claim 14, wherein
2 the transmitted data is queued within each virtual lane with respect to transmission
3 deadlines associated with the data.

1 18. (original) The method of reserving resources as recited in claim 14, wherein the multi-
2 port switching circuitry comprises processing circuitry and the resources comprise at
3 least part of the processing circuitry.

1 19. (previously presented) The method of reserving resources as recited in claim 14, wherein:
2 (a) the multi-port switching circuitry comprises linking circuitry for linking a plurality of
3 nodes in the computer network;
4 (b) the linking circuitry comprises a limited bandwidth; and
5 (c) the resources comprise at least part of the linking circuitry bandwidth.

1 20. (original) The method of reserving resources as recited in claim 14, wherein:
2 (a) the multi-port switching circuitry comprises adapter circuitry for connecting to an
3 external entity; and
4 (b) the resources comprise at least part of the adapter circuitry.

1 21. (canceled)

1 22. (currently amended) A computer network comprising:
2 (a) a plurality of interconnected computer devices including a plurality of client
3 computers and a plurality of disk drives for storing network data, each disk drive
4 comprising a head and a disk;
5 (b) a plurality of interconnected nodes; and

(c) a reservation facility for reserving resources within the disk drives and the nodes to support a predetermined Quality-of-Service constraint with respect to data transmitted between the disk drives and the client computers through the nodes of the computer network,

wherein the reservation facility limits movement of the head so as to constrain the head to a predetermined region of the disk, thereby reserving a resource within the disk drive.

23. (previously presented) The computer network of claim 22, wherein the resources comprise memory for buffering transmitted data.

24. (original) The computer network of claim 22, wherein the resources comprise network circuitry for communicating with the computer network.

25. (previously presented) The computer network of claim 24, wherein:

(a) the network circuitry comprises multi-port switching circuitry for simultaneously transmitting the transmitted data in multiple dimensions through the computer network; and

(b) the resources comprise a virtual lane within the multi-port switching circuitry.

26. (previously presented) The computer network of claim 25, wherein the transmitted data is queued within each virtual lane in order of arrival into the switched node.

27. (previously presented) The computer network of claim 25, wherein the transmitted data is queued within each virtual lane with respect to transmission deadlines associated with the data.

1 28. (original) The computer network of claim 25, wherein the multi-port switching circuitry
2 comprises processing circuitry and the resources comprise at least part of the processing
3 circuitry.

1 29. (original) The computer network of claim 25, wherein:
2 (a) the multi-port switching circuitry comprises linking circuitry for linking the nodes in
3 the computer network;
4 (b) the linking circuitry comprises a limited bandwidth; and
5 (c) the resources comprise at least part of the linking circuitry bandwidth.

1 30. (original) The computer network of claim 25, wherein:
2 (a) the multi-port switching circuitry comprises adapter circuitry for connecting to an
3 external entity; and
4 (b) the resources comprise at least part of the adapter circuitry.

1 31. (canceled)

1 32. (previously presented) The computer network of claim 22, wherein each node comprises
2 multi-port switching circuitry for simultaneously transmitting the transmitted data in
3 multiple dimensions through the computer network.

1 33. (currently amended) A computer network comprising:
2 (a) a plurality of interconnected computer devices including a plurality of disk drives for
3 storing network data, the disk drives each comprising a head and a disk;
4 (b) a plurality of interconnected nodes; and

(c) a reservation facility for reserving resources within the disk drives and the nodes to support a predetermined Quality-of-Service constraint with respect to data transmitted between the disk drives through the nodes of the computer network,
wherein the reservation facility limits movement of the head so as to constrain the head to a predetermined region of the disk, thereby reserving a resource within the node..

34. (previously presented) A switched fabric computer network comprising:

(a) a plurality of interconnected nodes for simultaneously transmitting data in multiple dimensions through the computer network, each node comprising:
switching circuitry comprising more than two bi-directional ports;
a disk for storing data; and
a head actuated over the disk for writing data to and reading data from the disk;

(b) a reservation facility for reserving resources associated with reading data from the disk and writing data to the disk to support a predetermined Quality-of-Service constraint with respect to data transmitted between the interconnected nodes and client computers connected to the switched fabric computer network; and
(c) a scheduling facility, responsive to the resources reserved by the reservation facility, for scheduling the transmission of the transmitted data through the interconnected nodes to support the predetermined Quality-of-Service constraint.

35. (previously presented) The switched fabric computer network of claim 34, wherein the resources comprise memory for buffering the transmitted data.

36. (original) The switched fabric computer network of claim 34, wherein the resources comprise network circuitry for communicating with the switched fabric computer network.

1 37. (original) The switched fabric computer network of claim 34, wherein:

2 (a) the switching circuitry comprises a plurality of virtual lanes; and

3 (b) the resources comprise at least one of the virtual lanes.

1 38. (previously presented) The switched fabric computer network of claim 37, wherein the
2 transmitted data is queued within each virtual lane in order of arrival into the switched
3 node.

1 39. (previously presented) The switched fabric computer network of claim 37, wherein the
2 transmitted data is queued within each virtual lane with respect to transmission deadlines
3 associated with the data.

1 40. (original) The switched fabric computer network of claim 34, wherein the switching
2 circuitry comprises processing circuitry and the resources comprise at least part of the
3 processing circuitry.

1 41. (previously presented) The switched fabric computer network of claim 34, wherein:
2 (a) the switching circuitry comprises linking circuitry for linking to a plurality of other
3 switched nodes in the computer network;
4 (b) the linking circuitry comprises a limited bandwidth; and
5 (c) the resources comprise at least part of the linking circuitry bandwidth.

1 42. (original) The switched fabric computer network of claim 34, wherein:
2 (a) the switching circuitry comprises adapter circuitry for connecting to an external
3 entity; and
4 (b) the resources comprise at least part of the adapter circuitry.

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1 43. (canceled)